

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P10903WO/JSH</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB2004/003127</b>	International filing date (day/month/year) <b>16/07/2004</b>	(Earliest) Priority Date (day/month/year) <b>18/07/2003</b>
Applicant <b>DELPHI TECHNOLOGIES, INC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB2004/003127

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A common rail fuel pump for an internal combustion engine includes a pumping plunger (10) that is reciprocable within a plunger bore (14) provided in a pump housing (16) under the influence of a drive arrangement (18, 20) to cause fuel pressurisation within a pump chamber (12). An inlet metering valve (46) is operable to meter the quantity of fuel supplied to the pump chamber (12) during the return stroke of the plunger (10). An outlet valve (58) controls the supply of pressurised fuel from the pumping chamber (12) through an outlet passage (30) to the common rail fuel volume in circumstances in which the inlet metering valve is closed. The outlet passage (30) has a pump outlet (38), from where fuel is supplied to the common rail fuel volume. The inlet metering valve (46), the plunger (10) and the pump outlet (38) are arranged in axial alignment, providing a compact and lightweight pump for installation in existing and purpose-built engines.